(Model.) 2 Sheets—Sheet 1.

J. L. BARKER & W. D. SLAUSON

CAR STARTER.

No. 255,238. Patented Mar. 21, 1882.

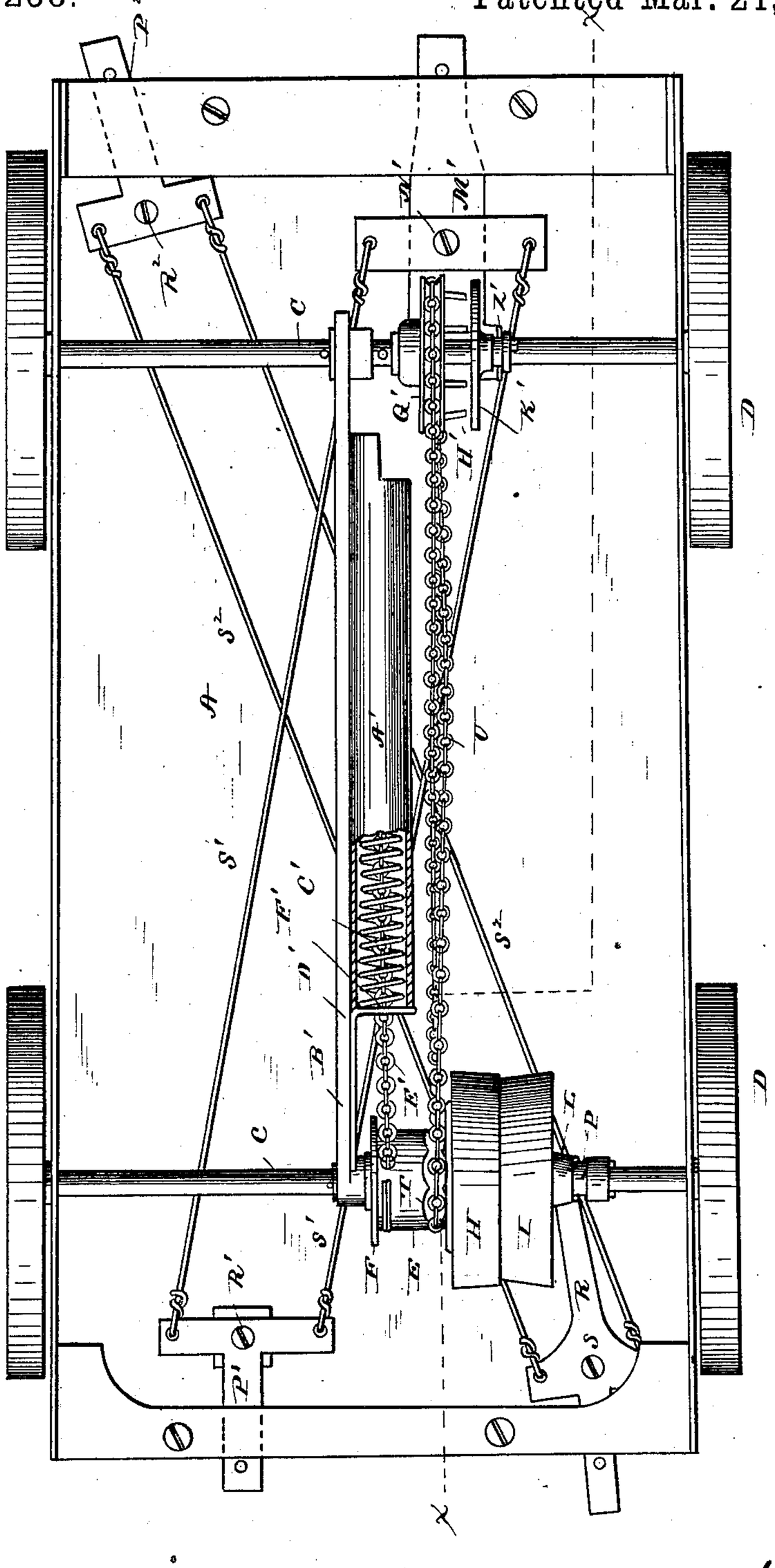

Fig. 1.

Witnesses,
Edwin L. Yerrell.
J. J. McCarthy.

Inventor.
John L. Barker.
Willis D. Slauson.
By C. M. Alexander Atty.

(Model.)

2 Sheets—Sheet 2.

J. L. BARKER & W. D. SLAUSON.

CAR STARTER.

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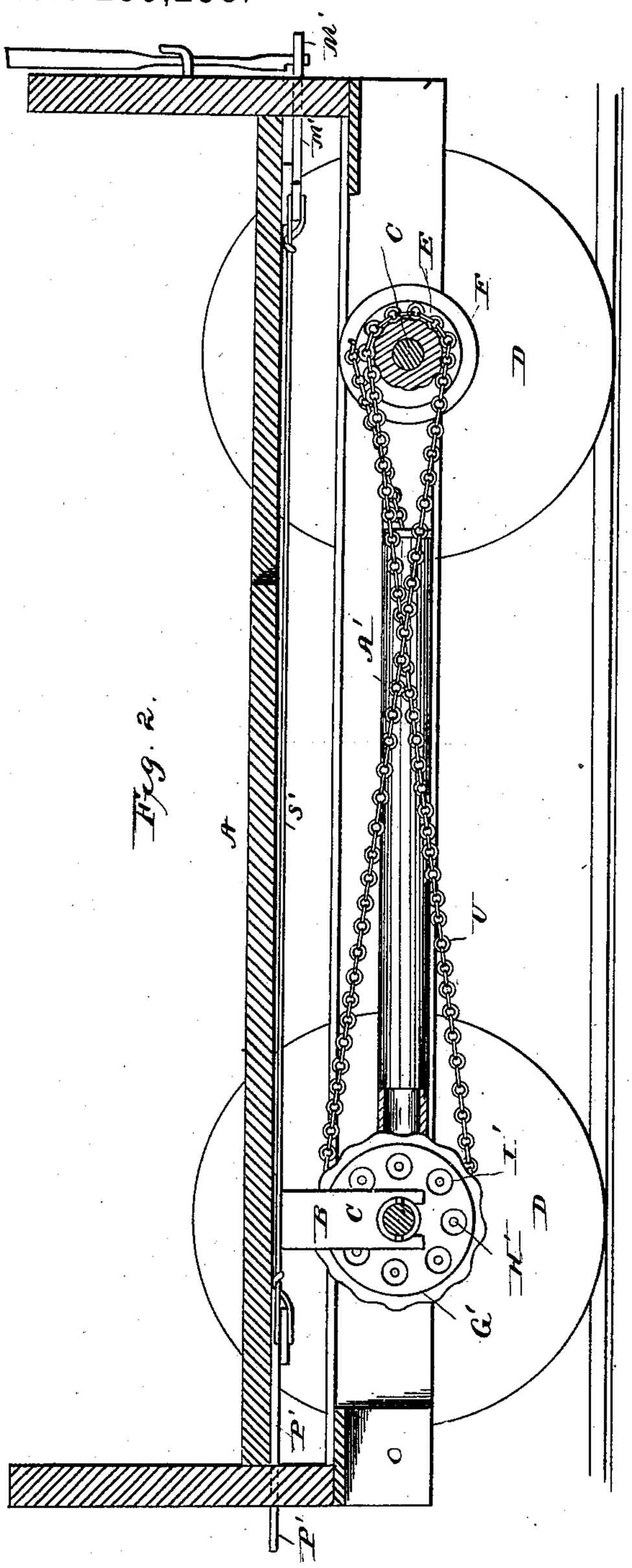

Fig. 2.

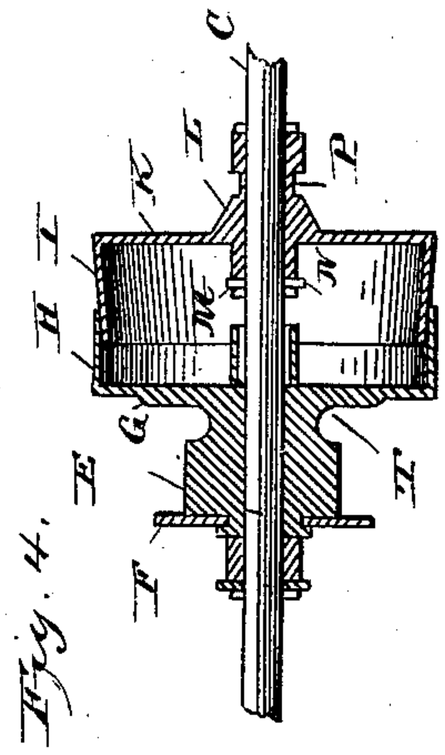

Fig. 4.

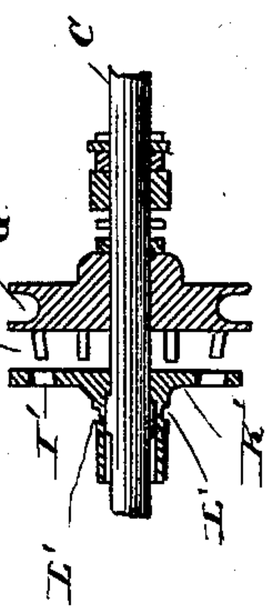

Fig. 3.

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UNITED STATES PATENT OFFICE.

JOHN L. BARKER AND WILLIS D. SLAUSON, OF RACINE, WISCONSIN.

CAR-STARTER.

SPECIFICATION forming part of Letters Patent No. 255,238, dated March 21, 1882.

Application filed January 21, 1882. (Model.)

To all whom it may concern:

Be it known that we, JOHN L. BARKER and WILLIS D. SLAUSON, of Racine, in the county of Racine, and in the State of Wisconsin, have invented certain new and useful Improvements in Car-Starters; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, and to the letters of reference marked thereon, making a part of this specification.

This invention relates to certain improvements in car-starters; and it has for its objects to provide certain improved means whereby the momentum of the car, as it is about to stop, may be employed to store up power in a spring to be subsequently employed to start the car, as more fully hereinafter specified. These objects we attain by the apparatus and devices illustrated in the accompanying drawings, in which—

Figure 1 represents a view of the bottom of a car, showing our improved car-starting mechanism. Fig. 2 represents a longitudinal vertical section of the car, showing the starting mechanism. Fig. 3 represents a detached view of the mechanism on the driving-shaft to be operated by the starting mechanism, and Fig. 4 represents a detached view of the starting mechanism.

The letter A indicates the truck or body of the car, which may be of the ordinary construction; and B indicates the journal-boxes thereof.

The letter C indicates the axles, and D the usual flanged wheels, keyed or otherwise affixed thereto.

The letter E indicates a drum mounted loosely upon one of the axles, and having at one end a guide-disk, F, and at the other a disk, G, provided with a rim, H, on its outer face, with which is adapted to engage the beveled periphery of the rim I of a wheel, K, by frictional contact. The disk K is provided with a hub, L, which is loosely mounted on the axle. The inner end of said hub is diametrically slotted, as indicated by the letter M, the slots being adapted to engage a pin, N, passing through the shaft, when the rim I is thrown into contact with the rim H, as indicated in Fig. 4 of the drawings. The outer end of the hub is provided with an annular groove, P, which is embraced by the bifurcated end of an angle-lever, R, fulcrumed at S to the car-body or truck, its free end projecting beyond the end of the car or truck. The drum at one side, is provided with a sprocketed groove, T, around which passes a chain, U, for the purpose hereinafter specified.

The letter A′ indicates a tube, secured longitudinally below the truck or car-body to a bar, B′, fitted loosely to the respective axles. The said tube contains a spiral spring, C′, one end of which bears against a bracket, D′, secured to the bar B′, the other end being connected to one end of a chain, E′, which passes through the spring and out of an aperture, F′, in the bracket, the other end of the chain being secured to the drum.

The letter G′ indicates a sprocket-wheel mounted loosely on the other axle of the car. The said wheel is provided on one face with a series of bent pins, H′, which are adapted to engage a series of apertures, I′, on a disk, K′, feathered upon the axle, the hub of the disk being provided with an annular groove, L′, into which set the arms of a bifurcated angle-lever, M′, fulcrumed at N′ to the car, its free end extending beyond the end of the car. The apertures in the disk are beveled in one direction, so that the disk will be automatically disengaged when the car is started. The chain U passes around the sprocket-wheel, connecting the same with the drum on the opposite shaft.

The letters P′ P^2 indicate two angle-levers, fulcrumed at R′ R^2 to the car, and connected by wires or rods S′ S^2 with the respective angle levers, as shown in Fig. 1, so that said levers may be operated from either end of the car.

The operation of my invention is as follows: When the car is about to stop, the driver or other person turns the proper levers, so as to throw the clutch mechanism of the drum and axle into engagement with each other. This causes the drum to wind the chain and compress the spring, storing up the power until it is required to start the car, when, upon releasing the brakes and the clutch mechanism, the spring, upon throwing the clutch mechanism into engagement, gives the car its initial movement, thus relieving the horses.

Having thus described our invention, what we claim, and desire to secure by Letters Patent, is—

The combination of the drum E, its disk and rim H, and the friction-wheel I, mounted loosely on one of the axles C, the slotted hub M and the pin N, and mechanism for throwing the parts into and out of gear, with the sprocket-wheel G′, provided with pins on its face, and the disk K′, provided with apertures for the pins, the mechanism for operating the disk to clutch the sprocket-wheel, and the chain U, spring C′, and chain E′, the whole arranged to operate substantially in the manner specified.

In testimony whereof we affix our signatures, in presence of two witnesses, this 28th day of December, 1881.

JOHN L. BARKER.
WILLIS D. SLAUSON.

Witnesses:
H. AUBREY TOULMIN,
C. A. NEALE.